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## ABSTRACT

A nonwoven web and method of preparing a novel nonwoven web of synthetic fiber are disclosed. An aqueous solution amide crosslinked synthetic precursor polymer is extruded under defined conditions through a plurality of die orifices to form a plurality of threadlines. The threadlines are attenuated with a defined primary gaseous source to form fiber under conditions of controlled macro scale turbulence and under conditions sufficient to permit the viscosity of each threadline, as it leaves a die orifice and for a distance of no more than about 8 cm, to increase incrementally with increasing distance from the die, while substantially maintaining uniformity of viscosity in the radial direction, at a rate sufficient to provide fiber having the desired attenuation and mean fiber diameter without significant fiber breakage. The attenuated threadlines are dried with a defined secondary gaseous source. The resulting fibers are deposited randomly on a moving foraminous surface to form a substantially uniform web. The moving foraminous surface is positioned about 10 to about 100 cm from the last gaseous source to contact the threadlines. The fibers have a mean fiber diameter in the range of about 0.1 to 30  $\mu m$  and are substantially free of shot. The attenuating and drying steps are carried out under conditions of controlled macro scale turbulence.